NOAA FISHERIES

Kenneth K. Chew Center for Shellfish Research & Restoration

Rebuilding Native Shellfish

New shellfish hatchery in Puget Sound

Native oyster populations in Puget Sound are at less than 4% of historic levels. This significant decline affects our region's ecology, as well as the cultural tradition of tribes and others who harvest shellfish for a living. In response, NOAA and the Puget Sound Restoration Fund are working with state, tribal, and industry partners in Washington State on a 10-year plan to rebuild populations of native Olympia oysters in Puget Sound and restore 100 acres of oyster habitat by 2020.

Located along the shores of Washington State's Kitsap Peninsula, NOAA's Manchester Research Station is perfectly situated to culture native shellfish. This research station has been at the forefront of aquaculture since the 1970s, and with the completion of a modern shellfish hatchery onsite, scientists and research and restoration partners are better equipped to advance the conservation of native shellfish.

Collaborative research goals

Working with our partner, the Puget Sound Restoration Fund, we will provide the scientific expertise and specialized facilities to support the research and production of native oysters and other Pacific Northwest living marine resources.

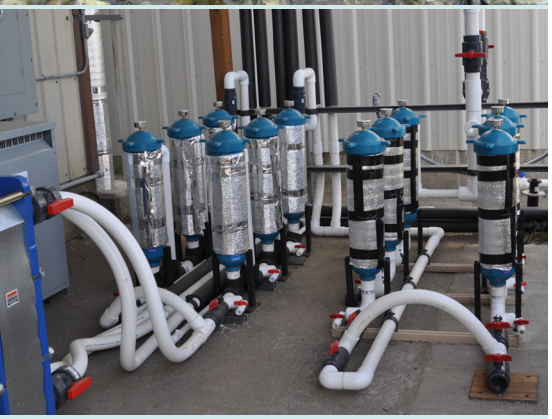
With the new shellfish hatchery, our near-term collaborative research goals are to:

- Culture genetically-diverse native oysters and preserve local populations.
- Expand the ability to restore native shellfish habitat in the Pacific Northwest.
- Advance the technology and practices of the shellfish aquaculture industry.
- Understand the impacts of ocean acidification on shellfish and other marine life.
- Improve monitoring to better predict changes in seawater chemistry that may affect shellfish hatchery operations.

Future research will focus on the culture of other marine life in Puget Sound, including rock scallops, Pinto abalone, and macroalgae.

By the numbers

- 1,400 ft^2 shellfish hatchery will provide restoration-grade Olympia oyster larvae and seed to those working on restoration throughout Washington State.
- 630 ft^2 greenhouse nursery for growing shellfish and microalgae.
- 600 ft^2 outdoor tank farm for setting oysters on "spat-on-shell".
- 150 gallons of filtered seawater per minute will be supplied from adjacent Clam Bay.
- A 20' x 8' floating upwelling system (FLUPSY) for oyster grow-out (singles).
- The hatchery will have the capacity to produce up to 6 million "spat-on-shell" oysters and up to 2 million oyster "singles" annually.



Banner photo: Manchester research station. Above photos: Olympia oysters and the new shellfish hatchery at the Manchester Research Station. NOAA

Puget Sound Restoration Fund

A Collaborative Partnership

NOAA has signed a formal agreement with the Puget Sound Restoration Fund (www.restorationfund.org), a Washington-based nonprofit organization, to collaboratively conduct and manage research and restoration activities at the native shellfish hatchery. Founded in 1997, PSRF restores marine habitat, water quality and native species in Puget Sound in collaboration with industry, tribes, government agencies, private landowners and community groups.

About the National Shellfish Initiative and Washington State Shellfish Initiative

In June 2011, NOAA launched a National Aquaculture Policy that included a National Shellfish Initiative to increase shellfish aquaculture for commercial and restoration purposes, stimulating coastal economies, and improving ecosystem health. Guided by the national effort, Washington State launched a new Shellfish Initiative in December 2011 to expand shellfish aquaculture and increase the availability of locally-produced seafood, jobs in coastal communities, and improved habitat and water quality. In the Pacific Northwest, the shellfish industry adds an estimated $270 million a year into the region's economy, bringing jobs to more than 3,200 people, primarily in coastal communities. For over 150 years, Washington State's tidelands have served as productive farm beds for nutritious oysters, clams and mussels.

The Washington Shellfish Initiative brings together local governments, tribes, and the shellfish industry to promote and expand aquaculture, increase opportunities for recreational shellfish harvesting, protect water quality, and restore native shellfish habitat and populations – including the native Olympia oyster and pinto abalone. The initiative invests state and federal funding to address environmental factors that stand in the way of shellfish aquaculture and restoration efforts, including pollution, agriculture impacts, and climate change.

The new facility will be named the Kenneth K. Chew Center for Shellfish Research and Restoration in recognition of Professor Chew's longstanding contributions to shellfish research and aquaculture, the contribution of his many students who continue to advance this work, and the importance of NOAA's efforts to restore shellfish in Puget Sound. In the 1970s and early 1980s, Prof. Chew operated a small shellfish hatchery at NOAA's Manchester Research Station. The new facility is a revival of Prof. Chew's original efforts in establishing the shellfish work at the lab.

NOAA – National Oceanic and Atmospheric Administration – U.S. Department of Commerce

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Above photo: The Kenneth K. Chew Center for Shellfish Research and Restoration. NOAA